

**Amendments to the Claims**

1. (currently amended) An automated transaction machine comprising:

at least one computer;

at least one transaction function device; of a first type, wherein the at least one transaction function device is capable of operation to carry out at least one first transaction function, wherein the at least one transaction function device is in operative connection with the at least one computer;

an extensions for financial services (XFS) software layer operative in the at least one computer;

a device driver software layer operative in the at least one computer, wherein the device driver layer is operative responsive to the XFS layer to control the operation of the at least one transaction function device, wherein the device driver layer includes at least one of a plurality of differently programmed device driver component software components, wherein each respective device driver component is operative to control a corresponding transaction function device of the first type, wherein a plurality of mechanically different devices of the first type are capable of being operated in automated transaction machines to carry out the at least one first transaction function, wherein at least one first device driver component included in the device driver layer of the machine is operative to control the that corresponds to the at least one transaction function device of the machine;

an Open Device Services (ODS) software layer, wherein at least a portion of the ODS layer is installed in operative connection with in the at least one computer, wherein the XFS layer is operative responsive to the ODS layer to communicate with the device driver layer, and wherein the ODS layer includes at least one a plurality of differently programmed ODS component software components, that corresponds to the wherein each respective ODS component is operative in conjunction with a respective corresponding one of the plurality of device driver components, wherein the at least a portion of the ODS layer installed in operative connection with the at least one computer includes at least one first ODS component adapted to operate in conjunction with the at least one first device driver component; and

a terminal software application operative in the at least one computer, wherein the at least one first ODS component is operative responsive to at least one communication from the terminal application to cause the at least one first device driver component to ~~cause~~ control the operation of the at least one transaction function device of the machine to carry out the at least one first transaction function responsive to through communication with through the XFS layer, wherein a plurality of ODS components included in the ODS layer are operative responsive to a common at least one communication from the terminal application, to cause at least one respective different communication through the XFS layer, wherein each respective at least one communication through the XFS layer is capable of causing a respective corresponding device driver component to cause a respective one of a plurality of mechanically different transaction function devices to carry out a common at least one transaction function.

2. (currently amended) The automated transaction machine according to claim 1, wherein when the at least one transaction function device is exchanged with a second transaction function device of the same first type, and the at least one first device driver component is exchanged with a at least one second device driver component that corresponds to the second transaction function device, the ODS layer is operative to enable the at least one first ODS component to be exchanged for a at least one second ODS component that corresponds to the at least one second device driver component.

3. (currently amended) The automated transaction machine according to claim 1, further comprising a plurality of transaction function devices in operative connection with the at least one computer, wherein for each respective transaction function device, the device driver layer includes a corresponding at least one device driver component and the ODS layer includes a corresponding at least one ODS component.

4. (original) The automated transaction machine according to claim 1, wherein the terminal application includes at least one transaction element component, wherein the transaction element component is operative to communicate with the ODS layer.

5. (currently amended) The automated transaction machine according to claim 4, wherein the at least one transaction function device includes a first transaction function device capable of performing the at least one first transaction function, and further comprising a second transaction function device in operative connection with the at least one computer and capable of performing at least one second transaction function, wherein the ODS layer includes a at least

one second ODS component, and wherein the transaction element component is operative responsive to the terminal application to communicate with both the at least one first and the at least one second ODS components to ~~have-cause~~ the first transaction function device perform the at least one a first transaction function and to ~~have-cause~~ the second transaction function device perform the at least one a second transaction function.

6. (currently amended) The automated transaction machine according to claim 5, wherein the first transaction function device includes a card reader and the second transaction function device includes a sound output device, and wherein the at least one first transaction function includes returning a card to a user and the at least one second transaction function includes outputting an audible sound.

7. (original) The automated transaction machine according to claim 5, wherein the transaction element component includes an ActiveX component.

8. (original) The automated transaction machine according to claim 5, wherein the transaction element component includes a Java component.

9. (currently amended) The automated transaction machine according to claim 1, wherein the XFS layer includes a first XFS layer, wherein the at least one transaction function device includes a first transaction function device, and further comprising a second XFS layer operative in the at least one computer, and a second transaction function device in operative connection with the at least one computer, wherein the ODS layer includes a at least one second ODS component, wherein the device driver layer includes a at least one second device driver

component, wherein the first ODS component is operative to communicate with the at least one first device driver component through the first XFS layer to control the operation of the first transaction function device, and wherein the at least one second ODS component is operative to communicate with the at least one second device driver component through the second XFS layer to control the operation of the second transaction function device.

10. (original) The automated transaction machine according to claim 9, wherein the first XFS layer includes a WOSA/XFS manager, and wherein the second XFS layer includes a J/XFS kernel.

11. (original) The automated transaction machine according to claim 1, wherein the XFS layer includes a WOSA/XFS manager.

12. (currently amended) The automated transaction machine according to claim 11, wherein the at least one transaction function device includes a cash dispenser.

13. (original) The automated transaction machine according to claim 1, wherein the XFS layer includes a J/XFS kernel.

14. (currently amended) The automated transaction machine according to claim 13, and further comprising a java virtual machine operative in the at least one computer, wherein both the J/XFS kernel and the at least one first ODS component are operative in the java virtual machine.

15. (currently amended) The automated transaction machine according to claim 14, wherein the terminal application includes at least one Java component that is operatively programmed to control the at least one transaction function device through communication with the at least one first ODS component.

16. (currently amended) The automated transaction machine according to claim 1, wherein the at least one first device driver component includes a diagnostic interface, wherein the diagnostic interface is operative to provide an external application with access to at least one internal hardware component of the at least one transaction function device.

17. (currently amended) The automated transaction machine according to claim 16, further comprising a diagnostic software application, wherein the diagnostic application is operative to access the internal hardware component of the at least one transaction function device through communication with the diagnostic interface, wherein ~~the communication~~ communication with the diagnostic interface pass includes communication through the XFS layer.

18. (currently amended) The automated transaction machine according to claim 17, wherein the diagnostic application is operative to deactivate the at least one transaction function device with respect to the XFS layer, ~~through responsive to communication with~~ through the XFS layer.

19. (original) The automated transaction machine according to claim 17, wherein the internal hardware component includes a motor.

20. (original) The automated transaction machine according to claim 17, wherein the internal hardware component includes a sensor.

21. (currently amended) A method comprising:

- a) installing an extensions for financial services (XFS) layer in an automated transaction machine, wherein the machine includes at least one computer and at least one transaction function device of a first type;
- b) installing a device driver software layer in operative connection with the at least one computer, wherein the device driver layer includes at least one of a plurality of differently programmed device driver components, wherein each respective device driver component is operative to control corresponding transaction function devices of the first type, wherein a plurality of mechanically different devices of the first type are capable of being operated in automated transaction machines, and wherein at least one first device driver component included in the device driver layer in the machine that corresponds to of the machine is operative to control the at least one transaction function device of the machine to carry out at least one transaction function responsive to communication with, wherein the device driver component is operative responsive to the XFS layer to control the operation of the transaction function device;
- c) installing at least a portion of an Open Device Services (ODS) software layer in operative connection with the at least one computer, wherein the ODS layer

includes a plurality of differently programmed ODS software components,  
wherein each respective ODS component is operative in conjunction with a  
respective corresponding one of the plurality of device driver components,  
wherein the at least a portion of the ODS layer installed in operative connection  
with the at least one computer includes at least one first ODS component in the  
machine that corresponds to is installed in operative connection with the at least  
one computer and is adapted to operate in conjunction with the at least one first  
device driver component; and

- d) installing a terminal application in operative connection with the at least one  
computer the machine, wherein the at least one first ODS component is operative  
responsive to at least one communication from the terminal application to cause  
the at least one first device driver component to cause is operative to control the  
operation of the at least one transaction function device of the machine to carry  
out at least one transaction function responsive to communication through  
communicate with the XFS layer ODS component, wherein the a plurality of  
ODS components is included in the ODS layer operatively programmed to are  
operative responsive to a common at least one communication communicate with  
the from the terminal application, to cause at least one respective different  
communication through the XFS layer, and wherein each respective at least one  
communication through the XFS layer is capable of causing a respective  
corresponding device driver component to cause a respective one of a plurality of  
mechanically different transaction function devices to carry out a common at least  
one transaction function through the XFS layer.



22. (currently amended) The method according to claim 21, wherein the at least one transaction function device includes a first transaction function device, wherein the automated transaction machine includes a second transaction function device, and further comprising:

- e) installing ~~a~~ at least one second device driver component in the machine that corresponds to the second transaction function device, wherein the at least one second device driver component is operative responsive to the XFS layer to control the operation of the second transaction function device;
- f) installing ~~a~~ at least one second ODS component in the machine that corresponds to the at least one second device driver component; and

wherein the at least one second ODS component is operative responsive to at least one communication from the terminal application is further operative to control the operation of the second transaction function device responsive to communication through communicate with the XFS layer that causes the at least one second device driver to operate the second transaction function device ~~second ODS component, wherein the second ODS component is operatively programmed to communicate with the second device driver component through the XFS layer.~~

23. (currently amended) The method according to claim 22, wherein in step (a) the terminal application includes a transaction element component, wherein the transaction element component is operatively programmed to control the operation of both the first transaction function device and the second transaction function device through communication with both the at least one first ODS component and the at least one second ODS component.

24. (currently amended) The method according to claim 21, wherein the at least one transaction function device includes a first transaction function device, and further comprising:

- e) replacing the first transaction function device with a second transaction function device that of the first type, wherein the second transaction function device is operative to perform the same type of at least one transaction function as the first transaction function device;
- f) installing ~~a~~ at least one second device driver component in the machine that corresponds to the second transaction function device, wherein the at least one second device driver component is operative responsive to communication through the XFS layer to control the operation of the second transaction function device;
- g) installing ~~a~~ at least one second ODS component in the machine that corresponds to the at least one second device driver component; and

wherein prior to (e) the terminal application is operative to control operation of the first transaction function device through communication with the at least one first ODS component, wherein the at least one first ODS component is operatively programmed to communicate with the first device driver component through the XFS layer;

and wherein after (g) the terminal application is operative without modification to control the operation of the second transaction function device through communicate

communication with the at least one second ODS component, wherein the at least one second ODS component is operatively programmed to communicate with the at least one second device driver component through the XFS layer.

25. (currently amended) The method according to claim 21 further comprising:

- e) installing a diagnostic application in the machine, wherein the diagnostic application is operative to communicate with the at least one first device driver component independently of the XFS layer, wherein the at least one first device driver component is operative responsive to the diagnostic application to access hardware components of the at least one transaction function device.

26. (currently amended) A method comprising:

- a) providing-receiving at least one input through an input device of an automated transaction machine, wherein the automated transaction machine includes at least one a first transaction function device of a first type capable of carrying out a first transaction function, wherein the automated transaction machine includes a terminal application, at least a portion of an Open Device Services (ODS) layer, at least one extensions for financial services (XFS) layer, and a device driver software layer, wherein the at least one XFS layer includes a first XFS layer, and wherein the device driver layer includes a first device driver software component selected from a plurality of differently programmed device driver software components, wherein each respective device driver software component of the

plurality of device driver software components is operative to control operation of one respective transaction function device of the first type, wherein a plurality of mechanically different transaction function devices of the first type are capable of operating in automated transaction machines to carry out the first transaction function, wherein the first device driver component is operative to control operation of the first transaction function device of the machine to carry out the first transaction function responsive to communication with the first XFS layer, wherein the ODS software layer includes a plurality of differently programmed ODS components, wherein each respective one of the plurality of ODS software components is operative in conjunction with a respective corresponding one of the plurality of device driver components, wherein the at least a portion of the ODS layer included in the automated transaction machine includes a first ODS software component that is adapted to operate in conjunction with the first device driver software component, wherein responsive to communication through the first XFS layer, the first ODS component is operative responsive to at least one communication from the terminal application to cause the first device driver software component to cause the first transaction function device to carry out the first transaction function, wherein a plurality of ODS components included in the ODS layer are operative responsive to the at least one communication from the terminal application, to cause at least one respective different communication through the XFS layer, which such respective different at least one communication through the XFS layer is capable of causing a respective corresponding device driver component to cause a respective one of the plurality

of mechanically different transaction function devices to carry out the first transaction function;

- b) providing a first communication between a the terminal application of the machine and the first ODS ~~a first Open Device Services (ODS)~~ component responsive to the at least one input;
- c) providing a second communication between the first ODS component and a the first XFS layer responsive to the first communication;
- d) providing a third communication between the first XFS layer and a the first device driver component responsive to the second communication;
- e) providing a fourth communication between the first device driver component and a the first transaction function device of the machine responsive to the third communication; and
- f) operating the first transaction function device responsive to the fourth communication to carry out a transaction function.

27. (original) The method according to claim 26, further comprising:

- g) providing a fifth communication between the terminal application and a second ODS component responsive to the at least one input;

- h) providing a sixth communication between the second ODS component and the first XFS layer responsive to the fifth communication;
- i) providing a seventh communication between the first XFS layer and a second device driver component responsive to the sixth communication;
- j) providing an eighth communication between the second device driver component and a second transaction function device responsive to the seventh communication; and
- k) operating the second transaction function device responsive to the eighth communication.

28. (original) The method according to claim 27, wherein the terminal application includes at least one transaction element component, and wherein in steps (b) and (g) the transaction element component is operative to provide both the first communication and the fifth communication.

29. (original) The method according to claim 26, further comprising:

- g) providing a fifth communication between the terminal application and a second ODS component responsive to the at least one input;

- h) providing a sixth communication between the second ODS component and a second XFS layer responsive to the fifth communication;
- i) providing a seventh communication between the second XFS layer and a second device driver component responsive to the sixth communication;
- j) providing an eighth communication between the second device driver component and a second transaction function device responsive to the seventh communication; and
- k) operating the second transaction function device responsive to the eighth communication.

30. (original) The method according to claim 29, wherein in step (b) the first XFS layer includes a WOSA/XFS manager and wherein in step (h) the second XFS layer includes a J/XFS kernel.

31. (original) The method according to claim 26 wherein in step (b) the first XFS layer includes a WOSA/XFS manager.

32. (original) The method according to claim 26 wherein in step (b) the first XFS layer includes a J/XFS kernel.

33. (original) The method according to claim 26 wherein the first transaction function device includes a cash dispenser, wherein step (f) includes dispensing cash with the cash dispenser responsive to the fourth communication.

34. (original) The method according to claim 26, further comprising:

- g) providing a fifth communication between a diagnostic application and the first device driver component, wherein the fifth communication does not pass through the first XFS layer; and
- h) accessing the transaction function device with the first device driver component responsive to the fifth communication.

35. (currently amended) The method according to claim 34, and wherein prior to step (h) further comprising:

- i) prior to step (h) determining that the diagnostic application is authorized to access the transaction function device through communication with the device driver component.

36. (currently amended) Computer readable media bearing computer readable instructions which are operative to cause at least one computer in the an automated banking machine to cause the machine to carry out the method steps recited in claim 26 comprising:



a) receiving at least one input through an input device of an automated transaction machine, wherein the automated transaction machine includes a first transaction function device of a first type capable of carrying out a first transaction function, wherein the automated transaction machine includes a terminal application, at least a portion of an Open Device Services (ODS) layer, at least one extensions for financial services (XFS) layer, and a device driver software layer, wherein the at least one XFS layer includes a first XFS layer, and wherein the device driver layer includes a first device driver software component selected from a plurality of differently programmed device driver software components, wherein each respective device driver software component of the plurality of device driver software components is operative to control operation of one respective transaction function device of the first type, wherein a plurality of mechanically different transaction function devices of the first type are capable of operating in automated transaction machines to carry out the first transaction function, wherein the first device driver component is operative to control operation of the first transaction function device of the machine to carry out the first transaction function responsive to communication with the first XFS layer, wherein the ODS software layer includes a plurality of differently programmed ODS components, wherein each respective one of the plurality of ODS software components is operative in conjunction with a respective corresponding one of the plurality of device driver components, wherein the at least a portion of the ODS layer included in the automated transaction machine includes a first ODS software component that is adapted to operate in conjunction with the first device driver software component, wherein responsive to communication through the first XFS

layer, the first ODS component is operative responsive to at least one communication from the terminal application to cause the first device driver software component to cause the first transaction function device to carry out the first transaction function, wherein a plurality of ODS components included in the ODS layer are operative responsive to the at least one communication from the terminal application, to cause at least one respective different communication through the XFS layer, which such respective different at least one communication through the XFS layer is capable of causing a respective corresponding device driver component to cause a respective one of the plurality of mechanically different transaction function devices to carry out the first transaction function;

b) providing a first communication between the terminal application of the machine and the first ODS component responsive to the at least one input;

c) providing a second communication between the first ODS component and the first XFS layer responsive to the first communication;

d) providing a third communication between the first XFS layer and the first device driver component responsive to the second communication;

e) providing a fourth communication between the first device driver component and the first transaction function device of the machine responsive to the third communication;

f) operating the first transaction function device responsive to the fourth communication to carry out a transaction function;

wherein the at least one further ODS component is adapted to be responsive to the same first communication in (b) from the terminal application to carry out with the first XFS layer at least one further communication that is different than the second communication in (c) and that is operative to cause the at least one further transaction function device through communication with the at least one further device driver component to carry out the same transaction function as carried out in (f).

37. (new) A method comprising:

- a) on a first automated transaction machine including at least one first computer, a plurality of devices including a first card reader and a first cash dispenser, and a first extensions for financial services (XFS) software layer operative in the at least one first computer, installing a first service provider software component in the first automated transaction machine, which first service provider software component is operative responsive to communication with the first XFS layer to cause a first device of the plurality of devices to carry out a first function, wherein the first device is of a first type, wherein the first service provider software component corresponds to one of a plurality of differently programmed service provider software components usable with an XFS layer, wherein each of the plurality of service provider software components is operative to control one of a

plurality of mechanically different corresponding devices of the first type, each of which devices are capable of being operated in automated transaction machines to carry out the first function;

- b) providing a first software layer comprising a plurality of differently programmed software components, each component respectively adapted to operate in conjunction with a respective corresponding service provider component, wherein the plurality of software components includes a first software component adapted to operate in conjunction with the first service provider software component;
- c) installing a first terminal application on the first automated transaction machine in operative connection with the at least one first computer; and
- d) configuring the first software component in operative connection with the at least one first computer such that the first software component is operative responsive to at least one first communication from the first terminal application to carry out a first communication through the first XFS layer, wherein the first communication is operative to cause the first service provider software component to cause the first device to carry out the first function, wherein a plurality of the software components in the first software layer are operative responsive to the at least one first communication from the first terminal application, to cause a respective different at least one communication through the XFS layer, wherein each respective at least one communication through the XFS layer is capable of causing a respective corresponding service provider

component to cause a respective corresponding device of the first type, to carry out the first function.

38. (new) The method according to claim 37, and further comprising:

- e) on a second automated transaction machine including at least one second computer, a plurality of further devices including a second card reader and a second cash dispenser, and a second XFS software layer operative in the at least one second computer, installing a second service provider software component in the second automated transaction machine which is operative responsive to communication from the second XFS software layer to cause a second device of the plurality of further devices, to carry out the first function, wherein the second device is of the first type;
- f) providing the first software layer, wherein the first software layer includes a second software component adapted to operate in conjunction with the second service provider software component;
- g) installing the first terminal application in the second automated transaction machine in operative connection with the at least one second computer, and
- h) configuring the second software component in operative connection with the at least one second computer such that the second software component

is operative responsive to the at least one first communication from the first terminal application installed on the second automated transaction machine, to carry out a second communication through the second XFS layer that is different than the first communication through the first XFS layer in (d), to cause the second service provider software component to cause the second device to carry out the first function.

39. (new) The method according to claim 37, wherein in (b) the plurality of components include Open Device Services (ODS) components.

40. (new) The method according to claim 37, wherein (b) includes installing the first software layer in operative connection with the at least one first computer.

41. (new) The method according to claim 37, wherein in (a) the first device includes the first cash dispenser.

42. (new) An method comprising:

- a) on an automated transaction machine comprising at least one computer, a plurality of devices including a card reader and a cash dispenser, at least one terminal application operative in the at least one computer, and at least two extensions for financial services (XFS) layers operative in the at least one computer, providing at least one first device driver software component operative responsive to communication through a first one of the XFS layers to cause at least one first device of the plurality of devices to operate, and providing at least

one second device driver software component operative responsive to communication through a second one of the XFS layers to cause at least one second device of the plurality of devices to operate;

- b) installing on the automated transaction machine: an intermediate layer comprising: at least one first intermediate component that is operative responsive to the terminal application to provide at least one first communication to the first one of the XFS layers, which at least one first communication is operative to cause the first one of the XFS layers to cause the at least one first device driver to cause the at least one first device to operate; and at least one second intermediate component that is operative responsive to the terminal application to provide at least one second communication to the second one of the XFS layers, which at least one second communication is operative to cause the second one of the XFS layers to cause the at least one second device driver to cause the at least one second device to operate; and
- c) responsive to the terminal application communicating with the *INTERMEDIATE LAYER*, causing the first and second devices to operate.

43. (new) The method according to claim 42, wherein in (a) the first one of the XFS layers includes a WOSA/XFS Manager; wherein in (a) the second one of the XFS layers includes a J/XFS Kernel.